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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/652,390

08/29/2003

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MDM-0307

3586

7590 04/19/2007
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EXAMINER

SINGH, PREM C

ART UNIT

PAPER NUMBER

1764

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/652,390	BISHOP ET AL.	
	Examiner	Art Unit	
	Prem C. Singh	1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 8-12, 14-19, 21-42, 44-52, 54-59 and 61-64 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-12, 14-19, 21-42, 44-52, 54-59 and 61-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Amendment to claim 1 is noted.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

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were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6,8-12

Claims 1-~~12~~ are rejected under 35 U.S.C. 103(a) as being unpatentable over Duprey et al (WO 01/07538 A1) in view of Borghard et al (WO 96/03359 A1).

Duprey invention discloses that the catalyst composition used in the present invention comprises a hydrogenation component, a surface aluminated aluminosilicate zeolite crystallites and a low acidity refractory oxide binder material which is essentially free of alumina (Page 5, lines 24-29). Examples of aluminosilicate zeolites are aluminosilicates mordenite, zeolite beta, ferrierite, ZSM-11, ZSM-5, ZSM-22, ZSM-23, ZSM-35, ZSM-38, ZSM-48, ZSM-57, SSZ-23, SSZ-24, SSZ-25, SSZ-26, SSZ-32, SSZ-33, and MCM-22 and mixtures of two or more of these (Page 6, lines 3-8). A good base oil product can be prepared when a catalyst is used containing ZSM-12 (Page 6, lines 9-11).

Duprey invention further discloses that the hydrogenation component suitably comprises at least one group VI B metal component and/or at least one group VIII metal component (Page 9, lines 11-13). Group VIII metal components include those components based on both noble and non-noble metals. Particularly suitable group VIII

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metal components accordingly, are palladium, platinum, nickel, and/or cobalt in sulfidic, oxidic, and/or elemental form (Page 9, lines 20-24).

Duprey invention does not specifically mention that the molecular sieve contains at least one 10 or 12 ring channel. Since Duprey invention uses similar molecular sieve as claimed by the applicant, inherently, it must have at least one 10 or 12 ring channel.

Duprey invention does not disclose treatment of dewaxing catalyst with a stream containing one or more oxygenates.

Duprey invention does not disclose the details of FT catalyst and synthesis.

Duprey invention does not disclose alumina binder for the dewaxing catalyst.

Borghard invention discloses that the zeolite beta may be composited with a matrix material to form the finished catalyst and for this purpose conventional non-acidic matrix material such as alumina silica-alumina and silica are suitable with preference given to silica as a non-acidic binder, although non-acidic aluminas such as alpha boehmite may also be used (Page 7, lines 21-27). If the catalyst is to be steamed in order to achieve the desired low acidity, it is performed after the catalyst has been formulated with the binder, as is conventional (Page 8, lines 3-6). Steaming typically utilizes an atmosphere of 100% steam, at a temperature of 430 to 590°C and is normally carried out for 12 to 48 hours in order to obtain the desired reduction in acidity (Page 8, lines 23-27).

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Borghard invention further discloses that the feed for the present conversion process is obtained by means of the FT synthesis, in which synthesis gas, comprising hydrogen and carbon monoxide is passed over a suitable catalyst under conditions of elevated temperature and pressure. The catalyst used is typically a metal or a metal oxide with iron, cobalt, nickel, ruthenium, thorium, rhodium, or osmium being preferred. Temperatures are typically in the range of 150 to 500°C and pressures of 100 to 100,000 kPa (Page 3, lines 20-30).

It would have been obvious to one skilled in the art at the time the invention was made to combine the teachings of Duprey and Borghard inventions and treat the catalyst with steam to reduce its acidity and make more useful for the dewaxing process. It is to be noted that steam (H-OH) is an oxygenate.

It would have been obvious to use FT catalyst disclosed in Borghard invention in Duprey process because both are using FT product for hydrodewaxing.

It would have been obvious to modify Duprey invention by using alumina binder disclosed in Borghard invention because both are functionally similar and alumina binder is cheaper.

Claims 14-26, 28, 30-63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duprey et al (WO 01/07538 A1) in view of Borghard et al (WO 96/03359 A1).

Duprey invention discloses a simple process which yields base oil products having a high viscosity index and a low pour point. This object is achieved by the following process. Process for preparing a lubricating base oil by contacting a synthetic wax, which wax is obtained by a Fischer-Tropsch (FT) process and has not been subjected to a hydroisomerization treatment, with a catalyst composition comprising at least a hydrogenation component, dealuminated aluminosilicate zeolite crystallites and a low acidity refractory oxide binder material which is essentially free of alumina (Page 2, lines 21-33). The FT process converts synthesis gas to a FT product comprising gaseous and liquid hydrocarbons and a FT wax (Page 3, lines 17-19). The FT product does not contain the sulfur, nitrogen or metal impurities normally found in crude oil, but is known to contain water, trace metals, and a number of unsaturated compounds and oxygenate compounds such as alcohols, ketones, aldehydes, etc. (Page 3, lines 21-26). The invention is also directed to a process to prepare a lubricating base oil as described above by performing at least the following steps (Page 5, lines 1-3). Preferred embodiments of the above-described process are apparent from the description and include embodiments in which lower boiling fuel products are prepared next to the lubricating base oil product. The lower boiling fuels are prepared starting from the FT product from which all or part of the FT wax has been separated in step (c) which are subjected an optional hydrotreating step followed by a hydroisomerization step and a fractionation step (Page 5, lines 14-23). Catalytic dewaxing involve operating temperatures in the range of from 200 to 500°C, preferably from 250 to 400°C, hydrogen pressures in the range of from 10 to 200 bar, preferably from 15 to 100 bar,

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more preferably from 15 to 65 bar, weight hourly space velocities in the range of from 0.1 to 10 kg oil per liter of catalyst per hour (kg/l/hr) and hydrogen to oil ratios in the range of from 100 to 2,000 liters of hydrogen per liter of oil (Page 10, lines 7-16). The catalyst was activated by reduction of the platinum under a hydrogen rate of 100 l/hr at a temperature of 350°C for 2 hours (Page 12, lines 6-8). A FT wax which has been subjected to a hydrotreatment in order to reduce the oxygen content to below 500 ppmw as molecular oxygen, but which has not been subjected to a hydroisomerization treatment having the properties listed in Table I (Page 12, lines 12-16).

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Duprey et al (WO 01/07538 A1) in view of Borghard et al (WO 96/03359 A1) and further in view of Ziemer (US Patent 4,867,862).

Duprey and Borghard inventions do not disclose dehazing of the stock.

Ziemer invention discloses a single stage, multi-layered catalyst system for hydrodehazing and hydrofinishing a hydrocracked, solvent dewaxed lube oil base stock (Column 1, lines 6-9).

Although Ziemer is using a stock from a hydrocracking unit, it would have been obvious to one skilled in the art at the time the invention was made to combine Duprey, Borghard, and Ziemer inventions and dehaze the stock for a better quality lubricant.

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Claims 29 and 64 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duprey et al (WO 01/07538 A1) in view of Borghard et al (WO 96/03359 A1) and further in view of Derr, Jr. et al (US Patent 4,684,756).

Duprey and Borghard inventions do not mention about a non-shifting FT catalyst.

Derr invention discloses conversion of relatively low H₂/CO ratio syngas (1/1 or less H₂/CO ratio) wherein it is essential that the CO reducing catalyst used include water-gas shift activity or be characterized so that steam formed in the FT operation will react with charged CO to form H₂. Examples of CO reducing catalysts having shift activity are iron alone, or iron, cobalt or ruthenium provided with an added shift catalyst component. Shift catalysts suitable for the process include those containing the elements Fe, Cr, Zn, Cu, or K (Column 2, lines 46-55).

Since Duprey and Borghard inventions do not mention about shift activity, it would have been obvious to use a non-shift catalyst, because shift reaction is not intended in their inventions as they are treating the FT products for dewaxing operation.

Response to Arguments

The Applicant argues that while in Example 4 it is recited that the F-T wax has been subjected to hydrotreatment in order to reduce the oxygen content to below 500 ppmw as molecular oxygen, this cannot be taken as a statement that any molecular oxygen actually remained in the thus treated FT wax. Consequently, it cannot be said

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that the catalyst used in Example 4 (the catalyst of Example 3) ever actually came into contact with a FT wax stream containing any molecular oxygen and further it cannot be said that the benefit associated with exposing a reduced hydrodewaxing catalyst to oxygenates, as taught in the present application, ever was actually secured in the prior art. "Below 500 ppmw" includes zero as well as 499 ppmw, with no clear actual value being taught. No clear teaching is presented as to just how far "below" 500 ppmw or "above" zero ppmw the molecular oxygen content of the FT was reduced or adjusted.

The Applicant's argument is not persuasive because Duprey discloses, "A FT wax which has been subjected to a hydrotreatment in order to reduce the oxygen content to below 500 ppmw as molecular oxygen, was contacted in the presence of hydrogen with the catalyst as obtained in Example 3." (Page 12, lines 12-20). The Examiner does not see a difference between the Applicant's "oxygenates in an amount of at least 100 wppm, measured as oxygen" and the prior art's "oxygen content to below 500 ppmw as molecular oxygen". The prior art may be interpreted as disclosing any amount above 500 ppmw is undesirable, and hence, the teaching of below 500 ppmw. The Applicant has not shown any critical range not taught by the prior art.

The Applicant argues that the reference does not teach, suggest or imply the beneficial result secured when the hydrodewaxing catalyst is deliberately exposed to oxygenates subsequent to the reduction of the catalyst in hydrogen but prior to the use of the catalyst for hydrodewaxing.

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The Applicant's argument is not persuasive because the catalyst in Duprey invention is exposed to oxygenates in-situ during hydrodewaxing.

The Applicant argues that the reference is very clear in its teaching that it is desirable, if not indeed also necessary, in order to avoid catalyst deactivation, to hydrotreat the FT wax feed to remove olefins and oxygenates prior to any hydroisomerization. This cannot be taken as teaching, suggesting or implying that a hydrodewaxing catalyst actually be deliberately treated with oxygenates prior to being used for hydrodewaxing, nor as teaching, suggesting or implying that subjecting a reduced catalyst to an oxygenate treatment would or could result in an improvement in the catalyst selectivity for hydroisomerization and a reduction in the gas make during hydrodewaxing.

The Applicant's argument is not persuasive because the prior art although does not specifically mention, but uses in-situ treatment with oxygenates and should render the advantages as cited by the Applicant (improvement in the catalyst selectivity for hydroisomerization and a reduction in the gas make during hydrodewaxing) which are not claimed.

The Applicant argues that the reference never recites that the FT wax feed must contain at least one oxygenate in an amount of less than 500 ppmw, but rather that the FT wax feed is hydrotreated to reduce its oxygenate content to "below 500 ppmw" as molecular oxygen. The presence of oxygen is never positively recited, all this is taught

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or suggested in that it is highly desirable that the oxygenates be removed from the feed prior to hydroisomerization.

The Applicant's argument is not persuasive because Duprey discloses, "FT product is known to contain water, trace metals, and a number of unsaturated compounds and oxygenate compounds such as alcohols, ketones, aldehydes, etc." (Page 3, lines 22-26). Duprey further discloses subjecting a FT wax to hydrotreatment to reduce the oxygen (it is to be noted that this "oxygen" is actually the oxygenates) content to below 500 ppmw as molecular oxygen (See page 12, lines 12-14).

The Applicant argues that indeed, in Borghard no statement or teaching of any kind is given or made regarding the practice of a reduction step in catalyst preparation.

The Applicant's argument is not persuasive because Borghard discloses, "If desired, the catalyst can be sulfided at atmospheric pressure with 2% H₂S/H₂ programmed up to 400°C and held overnight." (Page 14, lines 29-31). Obviously, there seems to be an option of using either H₂S or H₂. It is known to those skilled in the art that when hydrogen is used, the process is called reduction.

The Applicant argues that nothing in Borghard teaches, suggests or implies that a steaming step can or should ever be performed following a catalytically active metal loading step.

The Applicant's argument is not persuasive because Borghard discloses, "The zeolite beta employed herein is combined with a hydrogenation-dehydrogenation

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component which is typically selected from Group VIII A of the Periodic Table.” (Page 7, lines 11-13). “The zeolite beta may be composited with a matrix material to form the finished catalyst.” (Page 7, lines 21-22). “Steaming can be done before or after compositing.” (Page 8, lines 35-36). Clearly, when the steaming is done before compositing, it will follow the metal loading step.

The Applicant argues that bearing in mind the teaching of Duprey that any oxygenates present in a hydrocarbon feed must be reduced prior to any hydroisomerization step, it is readily apparent that one skilled in the art would be demotivated to steam a fully formed catalyst, one composing a catalytically active metal component on a zeolite in combination with a binder, which finished catalyst has been reduced to prepare it for use. Duprey teaches away from exposing such a catalyst to any oxygenates.

The Applicant's argument is not persuasive because Borghard uses steaming to reduce the acidity of the catalyst (See page 8, lines 3-6 and 22-36). Duprey uses similar catalyst with reduced acidity (See page 2, line 32; page 5, line 27; and page 7, lines 18-20). Borghard clearly mentions, “If the catalyst is to be steamed in order to achieve the desired low acidity,.....” (Page 8, lines 3-6). Borghard further clarifies the reason for reducing acidity, “The use of steaming to reduce the acid activity of the zeolite has been found to be especially advantageous.....” (Page 8, lines 27-29). Thus, if the catalyst has higher acidity, one skilled in the art will be motivated to steam the catalyst to reduce acidity for the advantages mentioned by Borghard.

With respect to claims 14-26, and 30-63, the Applicant argues about Duprey's Example 4 results.

The Applicant's argument regarding Example 4 has been addressed before.

The Applicant argues that consequently Duprey cannot be taken as teaching, suggesting, implying or motivating any practitioner skilled in the art of catalytic hydroisomerization to deliberately treat the hydroisomerization catalyst, following reduction, with a hydrocarbon feed containing oxygenates at any temperature, including temperatures below the hydroisomerization process temperature, prior to being employed in the hydroisomerization process.

The Applicant's argument is not persuasive because it is based on hydroisomerization process and catalyst while the claim 14 is drawn to hydrodewaxing process and catalyst.

The Applicant argues that Borghard teaches steaming of a modified zeolite Beta catalyst material following it being composited with a binder. This is not a finished catalyst but only a mixture of zeolite Beta and binder. There has been no reduction step. Indeed, in Borghard only calcinations steps are recited, even after catalytic metal has been added to the steam zeolite Beta/binder combination.

The Applicant's argument on steaming has been addressed before.

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The Applicant argues that Borghard does not teach, suggest, imply or motivate one skilled in the art to treat a finished, reduced catalyst with a hydrocarbon stream containing one or more oxygenates in an amount of at least 100 wppm measured as oxygen, such treatment to be conducted at a temperature below hydrodewaxing temperatures.

The Applicant's argument is not persuasive because this aspect has been taught by Duprey and discussed before.

The Applicant argues that Borghard can not be read in a vacuum. Borghard, which steams its unreduced but calcined zeolite Beta/binder composite prior to the addition of any metal cannot be seen as suggesting that Duprey be modified to include a step of subjecting a reduced metal containing catalyst to a treatment with a hydrocarbon fluid containing oxygenates at 100 wppm, as molecular oxygen, when Duprey itself teaches that oxygenates are detrimental to isomerization catalysts and are to be removed from the feed by hydrotreatment before the feed is subjected to isomerization over the catalyst.

The Applicant's argument is not persuasive because Borghard discloses, "Steaming can be done before or after compositing." (Page 8, lines 35-36). There is no reason for modifying Duprey invention by Borghard invention because Duprey uses a low acid catalyst and does not need steaming, while Borghard clearly states that steaming is done to reduce acidity, and discussed earlier.

The Applicant argues that as demonstrated in the present application, treatment of the reduced catalyst with a hydrocarbon feed containing oxygenates prior to using the catalyst for hydroisomerization resulted in a process which had a lower gas make than did a process using a reduced catalyst which had not been so treated (See paragraph 0046 and Figure 2). Further, the yield of dewaxed oil for a given pour point was higher in the process using the reduced catalyst which had been pretreated with the oxygenate containing hydrocarbon stream as compared to the process using the reduced catalyst in the untreated form (Paragraph [0047] and Figure 3). This is totally unexpected in view of Duprey which argues and teaches that oxygenates are detrimental and need to be removed from the feed prior to hydroisomerization to avoid deactivation of such catalyst.

The Applicant's argument is not persuasive because the claims are drawn to hydrodewaxing and not hydroisomerization.

With regard to the yield of dewaxed oil, it is to be noted that Duprey uses the dewaxing catalyst in presence of a FT wax which has been reduced in oxygenates to below 500 ppmw similar to the Applicant's claim 14. Thus, the catalyst in Duprey invention should be acting similar to the Applicant's claims. It is to be noted that Duprey is not removing the oxygenates completely, but reducing to below 500 ppmw (See page 12, lines 12-15).

The Applicant argues that it has been unexpectedly discovered that pretreating a reduced catalyst with an oxygenate containing stream prior to practicing hydrodewaxing is as effective as sulfiding such a catalyst in terms of gas make and dewaxed oil product

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yield. Unexpectedly, the oxygenate treatment doesn't deactivate the catalyst as one would have expected from the teachings of Duprey, but rather reduces gas make and increases yield for a given pour point as compared to the untreated catalyst.

The Applicant's argument is not persuasive because the catalyst in Duprey invention is being treated in-situ while in contact with the FT feed which has an oxygenates content reduced to below 500 ppmw. Thus, Duprey catalyst and the process should also yield results similar to the Applicant's. Duprey mentions, "Unsaturated or oxygenated products may cause a deactivation of certain catalysts used in further downstream treatment of the FT product" (Page 3, lines 30-34). This disclosure does not say that oxygenates cause deactivation of dewaxing catalyst.

The Applicant argues that Borghard subjects a calcined zeolite beta/binder composite to steam, then adds catalytic metal and calcines again to produce its catalyst. Borghard cannot be seen as teaching, suggesting, implying or motivating one skilled in the art to subject a reduced metal catalyst to treatment with an oxygenate containing hydrocarbon stream, for to do so contradicts the very teaching of Duprey.

The Applicant's argument is not persuasive because Borghard uses a catalyst which can be treated with 2% H_2S/H_2 (See page 14, lines 29-31) and a FT feed with oxygenates such as alcohols, carboxylic acids, esters, and other compounds (See page 5, lines 12-16).

The Applicant argues that because the two primary references, Duprey and Borghard, fail the teaching of Ziemer is irrelevant and claim 27 dependent ultimately on independent claim 14 shown to be patentable over Duprey and Borghard must similarly be patentable.

The Applicant's argument is not persuasive because independent claim 14 is not patentable over Duprey and Borghard.

The Applicant argues that as previously indicated Duprey and Borghard are ineffective to make the underlying process of the present applicants obvious. Because the two primary references are ineffective in rendering obvious the hydrodewaxing of FT waxy hydrocarbons over a reduced catalyst which reduced catalyst is treated with a hydrocarbon stream containing at least 100 wppm oxygenates as oxygen at temperatures below the hydrodewaxing temperature, the teaching of Derr, Jr. et al. regarding the FT wax synthesis process is irrelevant, and claims 29 and 64 are patentable.

The Applicant's argument is not persuasive because Duprey discloses a dewaxing process using a catalyst which is reduced. The reduced catalyst in Duprey process is treated in-situ with a hydrocarbon stream which has oxygenates reduced below 500 ppmw. One skilled in the art could pre-treat the catalyst at any temperature suitable for the treatment, including a temperature lower than the dewaxing temperature.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prem C. Singh whose telephone number is 571-272-6381. The examiner can normally be reached on MF 7:00 AM - 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PS/041007



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